

PATENT COOPERATION TREATY

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From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2005/050893

International filing date (day/month/year)
14.03.2005

Priority date (day/month/year)
17.03.2004

International Patent Classification (IPC) or both national classification and IPC
G11B7/08, G11B21/02

Applicant
KONINKLIJKE PHILIPS ELECTRONICS N.V.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050893

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/B2005/050893

**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or
industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Concerning Point V

1. In the present context, the term "normal operation" is not clear (Article 6 PCT): the locking action seems to be a normal operation mode of the pickup device as well, it is no failure mode.

For examination it is understood that the optical pickup is operated in a first mode and a second mode, where the first mode is an unlocked mode for allowing linear movement of the pickup and the second mode is a locked mode for restricting movement of the pickup.

2. The following documents are cited:

D1: JP-A-06.150.582 (abstract)
D2: JP-A-07.259.949 (abstract)
D3: JP-A-05.128.751 (abstract)
D4: JP-A-05.128.751 (abstract)
D5: JP-A-2003.059.210 (abstract)
D6: EP-A-1.635.407
D7: JP-A-62.277.677
D8: US-A-5.077.938

3. Document D1 is regarded as being the closest prior art and it discloses:
a device for positioning an optical pickup unit, having a lead screw to transform a rotational motor movement into a linear movement of the optical pickup via a follower, the follower having first stopping/locking means for realizing a secured end position of the optical pickup, cooperating with second stopping locking means (D1, abstract, figure, ref.signs 10,11).

The subject-matter of the present independent claims 1 and 10 differ in the essential feature in that the locking means cause a movement of the follower relative to a stop member into a locking position.

This is in order to realize an alternative pickup locking mechanism.

In D1, the follower is moved into a stop position, but not by locking means.
D2 shows another lead screw based feeding device (independent of the fact that it

does not describe an optical pickup) where the follower is driven by the normal screw turning towards the stopping/locking position (D2, abstract, figure), similar to D1.

D3 describes (magnetic head) pickup moving by a lead screw, where stopping/locking means are applied at a gear wheel.

D4 describes an optical pickup which is locked by driving over the pickup movement a locking device (abstract, figure, ref.sign 31).

D5 describes stopping of an optical disc pickup by the chassis wall and the nut plate for transforming the screw rotation into a linear movement is running in a crevice at the stopping position.

D6 describes an optical disc pickup driving device where the follower actuates a disc tray lock release.

D7 describes an optical pickup locking device working with an independent locking actuating device.

D8 describes a sliding door actuated by a screw and nut device where the follower (nut) is actuated by a locking device to move into a position that a stopping member prevents movement of the door.

The state of the art, dealing with pickup devices in general, do not give any hint on the essential feature of the present invention, in that the locking means causes a movement of the follower, which causes the pickup movement, into locking position with respect to a stopper member.

A solution showing a similar principle as the present invention can be taken from D8, dealing with a port sliding mechanism. Nevertheless, this application is of a total other dimension with respect to space, (motor) power and forces. Taking this solution according to D8 into consideration possibly would be based on a hindsight view. Therefore, the subject-matter of the present claims is considered to be novel and to be based on an inventive step as required by Articles 33(1)-(3) PCT.